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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 09/828,150 | 04/09/2001 | Tadashi Fujieda | 503.39984X00 | 6547 |
| 20457 | 7590 | 02/17/2004 | EXAMINER | |
| ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889 | | | SWARTHOUT, BRENT | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2636 | 7 |
| DATE MAILED: 02/17/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/828,150 | FUJIEDA ET AL. | |
| | Examiner | Art Unit | |
| | Brent A Swarthout | 2636 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 December 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 13,14-18/(13),20/13,19/13, and 21-37 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12,14-18/(1-4,12), and 20/12 is/are rejected.
- 7) Claim(s) 19/(1-4,12) is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

1. Claims 10,12 and 19/(1-4,12) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10 it is unclear how balls are larger than grain of composite powder, since the composite powder contains the ball, according to the claim.

In claim 12 it is unclear what relationship the material has to the composite member.

In claim 19 "said oblate composite magnetic particles" has no antecedent basis.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaragi et al.

Takaragi discloses a wave absorber comprising magnetic particles (col.5, lines 10-14) unified with oxide material (col.5, lines 16-19), wherein the particle size is less than 10 um (col.5, line 50). One of ordinary skill in the art would have recognized desirability of combining particles with ceramic material, since oxides are a form of ceramic matter.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakata et al.

Hakata discloses desirability of having a wave absorber (col.1, line 15) have fine metal powder unified with ceramic by enclosing the metal powder with ceramic (col.1, lines 51-61).

It would have been obvious to have the metal powder be of a magnetic substance, since wave absorbers conventionally contain magnetic material such as iron.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Claussen et al in view of Takaragi et al.

Claussen teaches desirability of embedding ceramic material into magnetic metal particles to create composite particles (col.1, lines 47-50).

It would have been obvious to use the composite magnetic material formed by Claussen in a wave absorber as taught by Takaragi, since Takaragi teaches desirability of using composite magnetic particles for a wave absorber, Claussen merely disclosing one conventional technique for forming such a composite substance.

5. Claims 4-8, 14-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Takaragi et al. or Hakata et al. or both Claussen et al. and Takaragi et al, further in view of Takaragi et al. or Hakata et al. or Nishihata et al.

Regarding claims 4 and 6, Takaragi teaches desirability of using iron and oxide materials (col. 5, lines 10-20).

Regarding claim 5, Hakata teaches bonding ceramic onto surface of magnetic particle (col. 1, lines 48-61).

Regarding claim 7, Nishihata teaches dispersing composite particles in a material having a higher resistivity than the particles (col. 4, lines 53-66).

Regarding claim 8, Takaragi teaches use of a resin (abstract).

Regarding claim 14, specific volume ratio would have been an obvious matter of engineering choice, depending on what ratio best absorbed desired electromagnetic waves.

Regarding claim 15, Takaragi teaches particle size below 50nm.

Regarding claims 16 and 18, Nishihata discloses coating a particle in material of higher resistivity.

Regarding claim 17, use of specific shape and ratio would have been obvious matters of engineering choice, depending on what arrangement yielded best absorbing qualities.

Regarding claim 20, Nishihata teaches use of polymers for the high resistivity material (col.6, lines 1-39).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakata et al. in view of Darracq et al.

Darracq teaches desirability of forming a composite magnetic material using mechanical alloying of magnetic and ceramic materials (col.2, lines 20-40).

Choosing to form the composite particles of Hakata for a wave absorber using the technique as disclosed by Darracq would have been obvious in order to obtain more durable particles.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benjamin in view of Hakata et al.

Benjamin teaches that composite particles can be formed by alloying using metallic or ceramic balls (col.1, lines 47-50; col.4, lines 3-11; col.5, lines 55-60).

It would have been obvious to form composite particles for a wave absorber as suggested by Hakata using the technique as set forth by Benjamin, in order to ensure that composite materials were securely bonded together.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takaragi et al. in view of Nishihata et al.

Claim 12 is rejected for the same reasons as set forth previously in paragraph No. 5.

9. The restriction requirement made in the Office action mailed 10-8-03 is made final, for the reasons as previously presented in the aforementioned Office action. However, since claims 14-20 are at least partially dependent on elected claims 1-12, claims 14-19/(1-4,12) and 20/12 have been examined in the present Office action along with elected claims 1-12.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Errico, Maeda and Takatsu disclose composite particle materials.

10. Claim 19/(1-4,12) is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A Swarthout whose telephone number is 703-305-4383. The examiner can normally be reached on M-F from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass, can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brent Swarthout
Brent A Swarthout
Examiner
Art Unit 2636

BRENT A. SWARTHOUT
PRIMARY EXAMINER